

THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. An infrared intrusion detector comprising a housing having two PIR receiver arrangements, each PIR receiver arrangement including a lens arrangement which focuses IR radiation from predetermined zones within a space to be monitored onto a IR sensor which produces a signal based on received IR radiation, said intrusion detector having a signal processing means connected to said sensors which processes the signals and evaluates the signals and produces an alarm signal when necessary based on the evaluation of the signals, said lens arrangements defining two sets of alternating active zones where one set of active zones is associated with one PIR arrangement and the next zone is associated with the other PIR arrangement and wherein adjacent active zones are separated by a nonresponsive zone which reduces the response from a ground level region to infrared radiation from radiation sources of the size of a small domestic pet.
2. A detector as claimed in claim 1 wherein said zones alternate in a vertical direction.
3. A detector as claimed in claim 2 wherein said zones alternate and have nonactive zones therebetween at ground level within about forty feet of the detector.
4. A detector as claimed in claim 1 wherein within about twenty feet of said detector said zones are separated by nonresponsive zones and beyond about twenty-five feet and at a height of about four feet said zones overlap.
5. A detector as claimed in claim 2 wherein said zones also alternate in a horizontal direction.

6. A detector as claimed in claim 1 wherein said nonresponsive zones between ground level and two feet and within twenty-five feet of the detector are large relative to a corresponding zone above the two foot level.

7. An infrared intrusion detector comprising a PIR receiver associated with a lens focusing arrangement, said lens focusing arrangement focusing IR signals from selective vertically separated segments of a space to be monitored and defining nonactive zones between adjacent selective segments, said selective segments and said nonactive zones being arranged such that at ground level a domestic cat located anywhere between six and twenty feet from the detector has insufficient effect on adjacent segments to have IR radiation therefrom and received by said PIR receiver to satisfy a minimum value indicating an intruder is present while there is sufficient effect due to the larger size of a human intruder to have said receiver receive sufficient radiation to exceed said minimum value.

8. A passive IR detector for mounting at an elevated position, said detector comprising a PIR receiver and an associated lens arrangement which divides the monitored space both horizontally and vertically to define active zones separated by nonresponsive zones, said PIR receiver including a processor for evaluating the received IR radiation from said active zones relative to a minimum threshold for producing an alarm signal, said active and nonactive zones being sized such that a cat at ground level and within twenty-five feet of the detector has insufficient overlap with said active zones whereby the PIR receiver receives insufficient IR radiation from the cat to exceed the minimum threshold.

9. A wallmount PIR detector comprising two sensors, each having an associated lens arrangement, which collectively focus IR radiation from selected beam-like regions within a monitored space onto the associated

sensor, a select group of said beam-like regions defining ground level responsive zones within about twenty feet of the detector and within about two feet of ground level which beam-like regions have sufficient nonresponsive zones therebetween both horizontally and vertically such that a domestic cat or similar pet moving through said ground level active zones fails to produce sufficient IR radiation received by said sensors to produce an alarm signal.

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